

CLAIMS

1. A system including

one or more business entities defining a head of a supply chain;

one or more sets of tiers of suppliers, wherein each said set of tiers is dis-

6 posed in an extended supply chain;

an electronic commerce facilitator coupled to said one or more business

8 entities and said one or more sets of tiers of suppliers;

a database including information from said one or more sets of tiers of

10 suppliers relating to two or more of the following: price, inventory, delivery schedules,

11 backorders and supply interruptions, exceptional events, contracts, and past transac-

12 tions; and

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an order collaboration system coupled to said electronic commerce facil-

14 tator, whereby said one or more business entities can view updates to supply chain

15 conditions for said plurality of said tiers.

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2. A system as in claim 1, including an aggregation element for ag-

18 gregation of information relating to one or more products associated with said one or

19 more business entities, wherein said information is stored in said database.

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3. A system as in claim 2, including a presentation element, wherein

22 said presentation element presents aggregated information to said one or more business

1 entities, wherein said one or more business entities can review aggregated supply chain
2 conditions for the extended supply chain for an enterprise in which the one or more
3 business entities is included; and wherein said one or more business entities can obtain
4 supply chain information from which it can determine, for each part used in any one of
5 a set of multiple products, set of supply chain information aggregated over said one or
6 more business entities individual enterprise.

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8 4. A system as in claim 2, wherein said aggregation element includes
9 a performance evaluation element capable of collecting and analyzing information re-
10 garding supply chain performance of multiple tiers of suppliers.

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12 5. A system as in claim 2, wherein said information regarding supply
13 chain performance includes at least one of: costs, ship dates, evaluation regarding
14 whether a selected supplier performed well with regard to price adjustments, with re-
15 gard to promised supply amounts or deliver schedules, whether the selected supplier
16 has had an unusual number of quality defects, or whether there have been an unusual
17 number of supply chain exceptions for that supplier.

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19 6. A system as in claim 2, including a brokering module that is part of
20 said hub or logically distinct from said hub and acts on that information on dearth and
21 surplus of parts and products to attempt to broker deals between or among entities that

1 have dearth and surplus of the same part or product, whereby the dearth and surplus
2 are eliminated or mitigated.

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4 7. A system as in claim 6, where said information is received from
5 said aggregating module.

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7 8. A system as in claim 6, where one or more said entities with dearth
8 in a certain said part or product can be matched with one or more said entities with
9 surplus in the same said part of product.

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11 9. A system as in claim 8, where said brokering module brokers a deal
12 among one or more said entities with said dearth and one or more said entities with
13 said surplus.

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15 10. A system as in claim 9, where each said entity can choose whether
16 they would like to participate in the brokered deal.

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18 11. A system as in claim 10, where the identity of each said entity is
19 kept secret until after said brokered deal is complete, whereby said entities cannot bro-
20 ker said deal without said hub.

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1 12. A system as in claim 8, where said entities are only matched within
2 brokering groups, where a single said brokering group contains zero or more said enti-
3 ties, and the group of said entities can be within a single supply chain, across supply
4 chains, or from within and outside of any number of supply chains.

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6 13. A system as in claim 12, where each said entity can be part of zero
7 or more brokering groups.

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9 14. A system as in claim 13, where each said brokering group can be
10 assigned by said hub or by another said entity acting with authority from said hub.

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12 15. A system as in claim 13, where said entities can opt to and refuse to
13 participate in said brokering group.

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15 16. A system as in claim 2, wherein
16 said information transferred across the supply chain is done so via said
17 hub;

18 said messages contain reference to one or more said messages that are its
19 causal antecedents;

20 said references contained are analyzed by said aggregation element;
21 said aggregation element uses the analysis to build a dictionary of cross-
22 references for information transferred in said messages;

1 said analysis is stored in said database; and
2 said dictionary can be reported to said one or more business entities or
3 said suppliers via said order collaboration system.

4

5 17. A system as in claim 1, including a feedback element capable of
6 obtaining feedback information for a design process in response to supply chain per-
7 formance.

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9 18. A system as in claim 17, wherein said feedback information in-
10 cludes information relating to at least one of: selected preferred parts, selected preferred
11 suppliers at one of said multiple tiers, selected parts that do not require new approval
12 for use, selected preferred suppliers that do not need approval.

13

14 19. A system as in claim 1, including a compliance element capable of
15 reviewing and enforcing compliance with contract terms between the one or more busi-
16 ness entities and its suppliers.

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18 20. A system as in claim 19, wherein contract compliance includes at
19 least one of: delivery price, delivery quantity, price-quantity breakpoints, terms for
20 parts returns, and delivery methods.

1 21. A system as in claim 1, including an allocation element capable of
2 directing said suppliers to allocate parts in relatively short supply to selected projects.

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4 22. A system as in claim 1, including a blind-design element capable of
5 directing said suppliers to use any design that meets design specifications.

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7 23. A system as in claim 22, wherein said blind-design element is re-
8 sponsive to a comparison of an estimated cost of optimization and an estimated possi-
9 ble cost savings due to design specification.

10

11 24. A method for operating an order collaboration system for an ex-
12 tended supply chain, including steps of

13 receiving a request from one or more business entities regarding supply
14 chain information relevant to one or more designs or parts used in designs;

15 determining which data is relevant to said request, wherein said data is
16 derived from one or more suppliers across one or more supply chains or past business
17 records associated with said manufacture and is related to at least one of the following:
18 price of at least one electronic or computer part, quantity available of said electronic or
19 computer part, delivery schedules for said electronic or computer part, backorders,
20 supply interruptions, exceptional events and contracts, and said data is stored in a da-
21 tabase coupled to a hub;

aggregating said data in such a way that said aggregated data is respon-

2 sieve to said request; and

generating a report and presenting said report to said one or more busi-

4 ness entities, wherein said report is responsive to said request.

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25. A method as in claim 24, wherein said request pertains to deter-

7 mining whether a contract manufacturer is complying with the terms of a contract.

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26. A method as in claim 24, wherein said request pertains to compar-

10 ing the overall projected cost of a particular design based upon prices from multiple
11 suppliers.

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27. A method as in claim 24, wherein said request pertains to deter-

14 mining the most cost efficient way to manufacture a design.

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28. A method as in claim 24, wherein said step of aggregating includes

17 evaluating the supply chain performance of multiple tiers of suppliers.

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29. A method as in claim 24, including a step of directing said suppli-

20 ers to allocate parts in relatively short supply to selected projects.

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1 30. A method as in claim 24, including a step of directing said suppli-
2 ers to use any design that meets design specifications based upon a comparison of an
3 estimated cost of optimization and an estimated possible cost savings due to design
4 specification.

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6 31. A method as in claim 24, wherein said step of aggregating includes
7 a step of analyzing messages transferred through the hub and constructing a cross-
8 reference dictionary of information passed in the messages.

9

10 32. A method as in claim 24, wherein said step of aggregating includes
11 determining dearth and surplus of parts and products at all known suppliers, manu-
12 facturers and other entities.

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14 33. A method as in claim 32, wherein one or more said suppliers,
15 manufacturers, or other said entities with said dearth in a certain said part or product
16 are matched with one or more said suppliers, manufacturers, or other said entities with
17 said surplus in the same said part or product.

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19 34. A method as in claim 33, wherein a deal is brokered among one or
20 more said suppliers, manufacturers, or other said entities with said dearth in a certain
21 said part or product and one or more said suppliers, manufacturers, or other said enti-
22 ties with said surplus in the same said part or product.

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2 35. A method as in claim 34, wherein said deal is brokered only among
3 said suppliers, manufacturers, and other said entities within the same said brokering
4 group, where said brokering group is a set of zero or more said suppliers, manufactur-
5 ers, other said entities, and other said brokering groups.

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7 36. A method as in claim 35, wherein said suppliers, manufacturers,
8 and other said entities can be in zero or more brokering groups.

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10 37. A method as in claim 35, wherein said suppliers, manufacturers,
11 and other said entities can opt to be in or can opt to be excluded from each said
12 brokering group.